Game Changing Development

Towed Glider Air Launch System (TGALS)

Completed Technology Project (2014 - 2016)

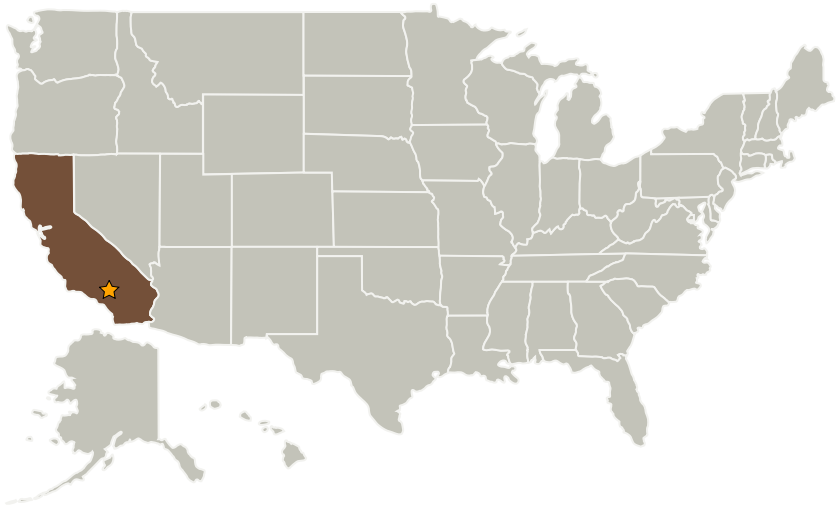
Project Introduction

Investigating an alternative approach to direct-carry air-launch . . . utilizing a one-third scale, twin fuselage glider to demonstrate proof-of-concept performance and operation. Seeking to show that a towed launch platform can carry a launch vehicle of 1 to 2 times its own weight, whereas the current state-of-the-art for direct-carry is roughly 0.7.

Anticipated Benefits

NASA funded: The Towed Glider Air-Launch System technology can increase the efficiency, in both time and cost, of small satellite launch and can provide a heavy lift capability for atmospheric flight test. OGA: The Towed Glider Air-Launch System technology can, through commercial launch provider adoption, provide an affordable means of launch for government agencies, particularly the DoD. Commercial: The Towed Glider Air-Launch System technology provides an affordable approach to launch and, if proved feasible, may be adopted by commercial launch providers.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Armstrong Flight Research Center(AFRC)	Lead Organization	NASA Center	Edwards, California

Towed Glider Air Launch System

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Armstrong Flight Research Center (AFRC)

Responsible Program:

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California

Project Transitions

October 2014: Project Start

March 2016: Closed out

Project Website:

https://www.nasa.gov/directorates/spacetech/home/index.html

Project Management

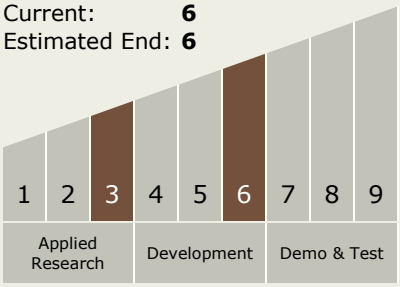
Program Director:
Mary J Werkheiser

Program Manager:
Gary F Meyering

Principal Investigator:
Christopher J Miller

Technology Maturity (TRL)

Start: **3**
Current: **6**
Estimated End: **6**



Target Destination

Earth